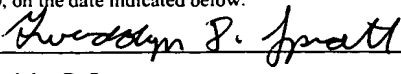


Form PTO-1390

<b>TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371</b>		ATTORNEY'S DOCKET NUMBER: <b>04150.0020U1</b> U.S. APPLICATION NO. (if known, see 37 CFR 1.5) <b>10/526,512</b> PRIORITY DATE CLAIMED <b>06 September 2002</b>
INTERNATIONAL APPLICATION NO. <b>PCT/GB2003/003864</b>	INTERNATIONAL FILING DATE <b>05 September 2003</b>	
TITLE OF INVENTION: <b>METHODS DETECTING, CHARACTERISING AND MONITORING HYDROCARBON RESERVOIRS</b>		
APPLICANT(S) FOR DO/EO/US: <b>KOTLAR, Hans Kristian; RUESLATTEN, Hakon Gunnar; RAMSTAD, Marit Valeur; and BRAKSTAD, Odd Gunnar</b>		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
<ol style="list-style-type: none"> <li>1. <input type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a filing under 35 U.S.C. 371.</li> <li>2. <input checked="" type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a filing under 35 U.S.C. 371.</li> <li>3. <input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.</li> <li>4. <input type="checkbox"/> The US has been elected (Article 31).</li> <li>5. <input type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))           <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> has been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ol> </li> <li>6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2))           <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto.</li> <li>b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li> </ol> </li> <li>7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))           <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> have been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li>d. <input type="checkbox"/> have not been made and will not be made.</li> </ol> </li> <li>8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</li> <li>9. <input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</li> <li>10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</li> </ol>		
Items 11 to 20 below concern document(s) or information included:		
<ol style="list-style-type: none"> <li>11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98, IDS Reference List listing References A1-A19; and copies of References A2-A19.</li> <li>12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</li> <li>13. <input type="checkbox"/> A preliminary amendment.</li> <li>14. <input type="checkbox"/> An Application Data Sheet under 37 CFR 1.76.</li> <li>15. <input type="checkbox"/> A substitute specification.</li> <li>16. <input type="checkbox"/> A power of attorney and/or change of address letter.</li> <li>17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821-1.825. The contents of the paper copy and the computer-readable form of the Sequence Listing submitted herewith are the same and include no new matter, as required by 37 C.F.R. 1.821(f).</li> <li>18. <input type="checkbox"/> A second copy of the published international application under 35 U.S.C. 154(d)(4).</li> <li>19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).</li> <li>20. Other items or information:</li> </ol>		
<b>CERTIFICATE OF MAILING</b>		
I hereby certify that this correspondence, including any items indicated as attached or included, is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date indicated below.		
 Gwendolyn D. Spratt		2-2-06 Date

U.S. APPLICATION NO. (if known, see 37 CFR 1.5) 10/526,512		INTERNATIONAL APPLICATION NO. PCT/GB2003/003864		ATTORNEY DOCKET NUMBER 04150.0020U1	
<b>The following fees have been submitted</b>				<b>CALCULATIONS</b>	<b>PTO USE ONLY</b>
21. <input type="checkbox"/> Basic national fee .....				\$300.00	\$ 0.00
22. <input type="checkbox"/> Examination fee					
If written opinion prepared by ISA/US or the IPER prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) .....				\$ 0.00	
All other situations .....				\$200.00	
23. <input type="checkbox"/> Search Fee					
If written opinion prepared by ISA/US or the IPER prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) .....				\$ 0.00	
If Search fee (37 CFR 1.445(a)(2) in International Application to USPTO as ISA .....				\$100.00	
ISR prepared by an ISA other than the US and provided to USPTO .....				\$400.00	
All other situations .....				\$500.00	
<b>TOTAL OF 21, 22 AND 23 =</b>				<b>\$ 0.00</b>	
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					
<b>Total Sheets</b>	<b>Extra Sheets</b>	<b>No. of each additional 50 or fraction thereof (round up to a whole number)</b>	<b>RATE</b>		
- 100	/ 50 =		X \$250	\$ 0.00	
Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$ 0.00	
<b>CLAIMS</b>	<b>NUMBER FILED</b>	<b>NUMBER EXTRA</b>	<b>RATE</b>		
Total claims	[****] - 20 =	*****	X \$50.00	\$ 0.00	
Independent claims	[***] - 3 =	*****	X \$200.00	\$ 0.00	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$360.00	\$ 0.00	
<b>TOTAL OF ABOVE CALCULATIONS =</b>				<b>\$ 0.00</b>	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2				\$ 0.00	
<b>SUBTOTAL =</b>				<b>\$ 0.00</b>	
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 months <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$ 0.00	
<b>TOTAL NATIONAL FEE =</b>				<b>\$ 0.00</b>	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31) \$40.00 per property				\$ 0.00	
<b>TOTAL FEES ENCLOSED =</b>				<b>\$ 0.00</b>	
				Amount to be refunded:	\$
				charged:	\$
<p>a. <input type="checkbox"/> A check in the amount of \$ _____ to cover the above fees is enclosed.</p> <p>b. <input type="checkbox"/> Please charge my Deposit Account No. 14-0629 in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed.</p> <p>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees, which may be required, or credit any overpayment to Deposit Account No. 14-0629. A duplicate copy of this sheet is enclosed.</p> <p>d. <input type="checkbox"/> Fees are to be charged to a credit card. <b>WARNING:</b> Information on this form may become public. <b>Credit card information should not be included on this form.</b> Provide credit card information and authorization on PTO-2038.</p> <p>e. <input checked="" type="checkbox"/> Pursuant to 37 C.F.R. §1.136(a)(3), the Commissioner is hereby requested and authorized to treat any concurrent or future reply in the above-identified application, requiring a petition for an extension of time for its timely submission, as incorporating a petition for extension of time for the appropriate length of time.</p>					
<p><b>NOTE:</b> Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137 (a) or (b) must be filed and granted to restore the application to pending status.</p>					
<p>SEND ALL TO THE ADDRESS ASSOCIATED WITH: : Customer No. 23859</p>					
<p><i>Gwendolyn D. Spratt</i> SIGNATURE Gwendolyn D. Spratt NAME 36,016 REGISTRATION NUMBER</p>					

**ATTORNEY DOCKET NO. 04150.0020U1**  
**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of	)	
	)	
KOTLAR, et al.	)	Art Unit: unassigned
	)	
Application No. 10/526,512	)	Examiner: unassigned
	)	
International Filing Date: September 5, 2003	)	Confirmation No. unassigned
	)	
For: METHODS DETECTING,	)	
CHARACTERISING AND	)	
MONITORING HYDROCARBON	)	
RESERVOIRS	)	

**INFORMATION DISCLOSURE STATEMENT**

Mail Stop PCT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

NEEDLE & ROSENBERG, P.C.  
Customer Number 23859

Sir:

Pursuant to the requirements of 37 C.F.R. § 1.56, submitted herewith on the accompanying Information Disclosure Statement List is a listing of documents known to Applicants and/or their attorneys. In accordance with 37 C.F.R. §1.98(a)(2), copies of any cited U.S. patent or U.S. patent application publication documents are not enclosed. Copies of any cited foreign patent document and/or any non-patent publication are enclosed.

This Information Disclosure Statement is believed to be filed in a timely manner pursuant to 37 C.F.R. § 1.97(b)(3), in that a first Office Action on the merits of the present patent application has not yet been mailed to Applicants.

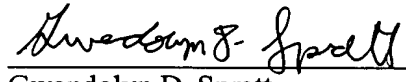
Consideration of the cited documents and making the same of record in the prosecution of the above-referenced application are respectfully requested.

**ATTORNEY DOCKET NO. 04150.0020U1**  
**Application No. 10/526,512**

No fee is believed due; however, the Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 14-0629.

Respectfully submitted,

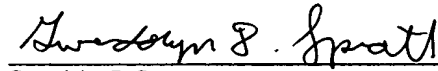
NEEDLE & ROSENBERG, P.C.

  
Gwendolyn D. Spratt  
Registration No. 36,016

NEEDLE & ROSENBERG, P.C.  
Customer Number 23859  
(678) 420-9300  
(678) 420-9301 (fax)

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8

I hereby certify that this correspondence, including any items indicated as attached or included, is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date indicated below.

  
Gwendolyn D. Spratt

\_\_\_\_\_  
Date

## INFORMATION DISCLOSURE STATEMENT LIST

(Use as many sheets as necessary)

Complete if Known

Application Number	10/526,512
Intl. Filing Date	September 5, 2003
First Named Inventor	Kotlar, Hans
Group Art Unit	
Examiner Name	

### U.S. PATENT DOCUMENTS

Examiner's Initials	Cite No.	Document No.	Date	Name	Class	Subclass	Filing Date (if appropriate)
	A1	5,055,397	10/08/91	Michaels <i>et al.</i>	435	9	

### FOREIGN PATENT DOCUMENTS

Examiner's Initials	Cite No.	Foreign Patent Document Country Code-Number-Kind Code	Date	Name	Translation Yes/No
	A2	EP 0 502 271 A	09/09/92	Standard Oil Co.	Yes
	A3	JP 2001 128678	05/15/01	Marine Biotech Inst. Co. Ltd.	Yes, abstract.
	A4	JP 2002 270989	09/20/02	Matsushita Electric Ind. Co. Ltd.	Yes, abstract.
	A5	WO 91/02086	02/21/91	Sleat, <i>et al.</i>	Yes
	A6	WO 01/14587	03/01/01	JAPAN as represented by Secretary Of Agency Of Industrial Science And Technology, <i>et al.</i>	Yes, abstract.
	A7	SU 892394	12/23/81	Soyuzgeofizika Nucl.	Yes, abstract.

### NON-PATENT DOCUMENTS

Examiner's Initials	Cite No.	Non-Patent Citations (include Author, Title, Publisher, Relevant Pages, Date and Place of Publication)
	A8	DeLong <i>et al.</i> "Archaea in Coastal Marine Environments," <i>Proc. Natl. Acad. Sci. USA</i> , 89: 5685-5689 (1992).
	A9	Fausnaugh, James M. "A Novel Microbial Survey Method for the Detection of Near Surface Hydrocarbon Microseepage," < <a href="http://www.karl.nrcce.wvu.edu/esaapg/abstracts/97mtg-abstracts/fausnaugh2.htm">http://www.karl.nrcce.wvu.edu/esaapg/abstracts/97mtg-abstracts/fausnaugh2.htm</a> >.
	A10	Lanno, <i>et al.</i> , "Development of Relevant Ecological Screening Criteria for the Ecological Assessment of Petroleum Hydrocarbon-Contaminated Exploration and Production Sites," Quarterly Progress Report < <a href="http://ipec.utulsa.edu/ipec/reports_with_pics.d/JulSep01.html">http://ipec.utulsa.edu/ipec/reports_with_pics.d/JulSep01.html</a> >
	A11	Massana <i>et al.</i> , "Vertical Distribution and Phylogenetic Characterization of Marine Planktonic Archaea in the Santa Barbara Channel," <i>Applied Environ. Microbiology</i> , 63(1):50-56 (1997)
	A12	"Microbial Formation damage of Hydrocarbon Reservoirs," < <a href="http://www.corex.co.uk/newsrb.htm">http://www.corex.co.uk/newsrb.htm</a> >
	A13	Orphan <i>et al.</i> , "Culture-Dependent and Culture-Independent Characterization of Microbial Assemblages Associated with High-Temperature Petroleum Reservoirs," <i>Applied and Environ. Microbiology</i> , 66(2):700-711 (2000) (Abstract)
	A14	Rawat <i>et al.</i> , "Geo-Microbial Exploration for Hydrocarbon – A Promising Technique," <i>Proc. Second Seminar on Petroliferous Basins of India</i> , 3:297-300 (1994)
	A15	"Reservoir Oil Fingerprinting (ROF)" < <a href="http://www.humble-inc.com/rof_app99-2.htm">http://www.humble-inc.com/rof_app99-2.htm</a> >
	A16	Schwark <i>et al.</i> "Geochemical Effects of Secondary Migration Within the Candeias – Agua Grande Petroleum System Along the Mata Catu Fault Trend, Reconcavo Basin, Brazil," < <a href="http://www.cseg.ca/conferences/2000/2000abstracts742.PDF">http://www.cseg.ca/conferences/2000/2000abstracts742.PDF</a> >
	A17	Stetter, Karl O. "Hyperthermophilic Archaea and Bacteria From Hot Petroleum Reservoirs," <i>Earth Systems Process – Global</i> (Abstract)

Examiner Signature:

Date Considered:

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

## INFORMATION DISCLOSURE STATEMENT LIST

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/526,512
Filing Date	September 5, 2003
First Named Inventor	Kotlar, Hans
Group Art Unit	
Examiner Name	

## NON-PATENT DOCUMENTS

[illegible]

Examiner Signature: \_\_\_\_\_

Date Considered:

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.